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Juha Paaso

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EXAMINER

AMINI, JAVID A

ART UNIT

PAPER NUMBER

2628

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/542,352	PAASO, JUHA	
	Examiner	Art Unit	
	JAVID A. AMINI	2628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 July 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Arguments

Applicant's arguments with respect to claim s 1-24 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-8, 17-24 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Regarding claims 1-8, the language of claim raises a question whether the claim is directed merely to an abstract idea or mathematical algorithm which would not result in a practical operation producing a concrete, useful, and tangible result to form the basis of statutory subject matter under 35 U.S.C. 101. On the other hand, based on Supreme Court precedent and recent Federal Circuit decision, the Office's guidance to examiners is that a 101 process must (1) be tied to another statutory class (such as a particular apparatus) or (2) transform underlying subject matter (such as an article or materials) to a different state or thing. If neither of these requirements is met by the claim, the method is not a patent eligible process under 101 and should be rejected as being directed to non-statutory subject matter.

Regarding claims 17-24 define a [a computer program,] embodying functional descriptive material. However, the amended claim 17 defines a computer-readable medium, but the "medium" is not defined as a storage device. Examiner believes the "medium" may be considered as a signal/carrier wave, because paragraph 0043 on page 12 of the specification defines that the computer program can be transmitted by using different transmitting means.

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Therefore, this language serves to overcome the 101 rejection while ensuring that the claim is drawn to the disclosed “computer readable storage medium” embodiment, and NOT the computer program that is embodied on a computer readable medium (transmitting means/signal/carrier wave, etc.) embodiment which is currently deemed non-statutory by the Office.

Claims 18-24 are rejected with similar reasons as set forth in their independent claim 17, above. Notes: Claims 17-24 recited computer-executable commands, but do not recite where the computer-executable commands are stored.

Claim 9 recited “a device”, according to paragraph 0042 page 11 of the specification the Examiner believes the “device” is considered as part of a display adaptor that comprises a CPU and a memory. As a result with respect to the guideline claims 9-16 are statutory.

Specification

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: Claim 17 recited subject matter of “a computer readable medium”.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Toriya et al. 6867769, hereinafter Toriya, and in view of Gorman et al. 6798411, hereinafter Gorman.

1.

A method for processing a computer aided polygon model, comprising:

Macpherson teaches forming a linear vertex array which is static and which contains the vertices of the image elements of the polygon model (e.g., noted in [0015]);

Macpherson teaches forming a linear index array whose elements define the image elements of the polygon model by pointing at the vertices of each image element (e.g., it is noted [0018]), and which linear index array comprises an active part, the image elements defined by the elements of the active part being included in the polygon model part to be presented graphically (e.g., noted in [0019]);

Macpherson does not teaches modifying the active part of the index array to change the image elements included in the polygon model part to be presented graphically while maintaining the linearity of the index array.

However, Mao teaches modifying the active part of the index array to change the image elements included in the polygon model part to be presented graphically while maintaining the linearity of the index array (e.g., in col. 3 lines 5-48).

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Thus, it would have been obvious to a person skill in the art at the time of the invention to combine Mao into Macpherson, in order to develop a technique for reducing the amount of data needed to represent an image.

2.

A method according to claim 1, further comprising presenting graphically the polygon model part to be presented graphically, Macpherson illustrates in fig. 2 that is a perspective view of the 3D mesh after it has been adaptively simplified.

Claims 10, and 18 are rejected with similar reasons as set forth in claim 2, above.

3.

A method according to claim 1, further comprising modifying the active part of the linear index array by replacing an element of the linear index array with another element of the linear index array (e.g., Mao teaches in col. 8, lines 12-61).

Claims 11 and 19 are rejected with similar reasons as set forth in claim 3, above.

4.

A method according to claim 1, further comprising forming the linear vertex array in such a way that each vertex appears in the vertex array only once, it is apparent to one skilled in the art that each vertex appears in the vertex array only once, because in col. 9 table II teaches history list for each vertex in the mesh.

Claims 12 and 20 are rejected with similar reasons as set forth in claim 4, above.

5.

A method according to claim 1, further comprising forming a linear index array in such a way that the linear index array further comprises a passive part, the image elements defined by

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the elements of the passive part belonging to the outside of the polygon model part to be presented graphically; and modifying the active part of the linear index array by moving at least one element of the linear index array between the active part and the passive part, (i.e. noted in [0025] of Macpherson, see empty element.

Claims 13 and 21 are rejected with similar reasons as set forth in claim 5, above.

6.

A method according to claim 1, further comprising registering the modification of the linear index array in such a way that the linear index array is restorable to the state preceding the modification (e.g., it is apparent to one skilled in the art that each vertex appears in the vertex array only once, because in col. 9 table II teaches history list for each vertex in the mesh).

Claims 14 and 22 are rejected with similar reasons as set forth in claim 6, above.

7.

Regarding claim 7 limitations, Mao teaches in col. 8 lines 28-45, and in col. 2 lines 46-50.

Claims 15 and 23 are rejected with similar reasons as set forth in claim 7, above.

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Claim 8 is taught by Mao in col. 2 lines 55-65.

Claims 16 and 24 are rejected with similar reasons as set forth in claim 8, above.

Claims 9, 17 are rejected with similar reasons as set forth in claim 1, above.

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAVID A. AMINI whose telephone number is (571)272-7654. The examiner can normally be reached on 8-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kee Tung can be reached on 571-272-7794. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Javid A Amini
Examiner
Art Unit 2628

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